

CLAIMS

What is claimed is:

1. A radio receiver comprising:
 - a first tuner connected with an antenna for generating a first audio signal;
 - 5 a second tuner connected with the antenna for generating a second audio signal;
 - a digital signal processor connected with the first tuner and the second tuner, where the first audio signal and the second audio signal are processed by the digital signal processor to generate a first audio output signal and a second audio output
 - 10 signal;
 - a first audio power amplifier connected with the digital signal processor configured to receive the first audio output signal; and
 - a second audio power amplifier connected with the digital signal processor configured to receive the second audio output signal.
- 15 2. The radio receiver of claim 1 further comprising a control unit connected with the first tuner and the second tuner.
3. The radio receiver of claim 2 where the control unit is operable to generate a first
- 20 tuner control output that is used to set the first tuner to a first selected frequency.
4. The radio receiver of claim 3 where the control unit is operable to generate a second tuner control output that is used to set the second tuner to a second selected frequency.
- 25 5. The radio receiver of claim 1 where a signal quality output signal is provided to a control unit by the first tuner.
6. The radio receiver of claim 5 where the control unit is operable to adjust the first tuner
- 30 to an alternate frequency setting if a first frequency setting falls below a predetermined threshold of signal quality.

7. The radio receiver of claim 1 where a signal quality output signal is provided to a control unit by the second tuner.

8. The radio receiver of claim 7 where the control unit is operable to adjust the second tuner to an alternate frequency setting if a first frequency setting falls below a predetermined threshold of signal quality.

9. The radio receiver of claim 1 further comprising a first radio data system decoder connected with the first tuner and a control unit.

10. The radio receiver of claim 9 where the first radio data system decoder is configured to provide data to the control unit that relates to the first tuner.

11. The radio receiver of claim 10 where the data is displayed on a display connected with the control unit.

12. The radio receiver of claim 9 further comprising a second radio data system decoder connected with the second tuner and the control unit.

13. The radio receiver of claim 12 where the second radio data system decoder is configured to provide data to the control unit that relates to the second tuner.

14. The radio receiver of claim 13 where the data is displayed on a display connected with the control unit.

15. The radio receiver of claim 1 where the first audio power amplifier is connected with at least one speaker.

16. The radio receiver of claim 1 where the second audio power amplifier is connected with a headphone jack.

17. The radio receiver of claim 1 where the first audio power amplifier is connected with a vehicle speaker system and the second audio power amplifier is connected with a headphone jack.

5 18. A radio receiver comprising:
a control unit;
a first tuner connected with the control unit capable of being tuned to a first frequency setting;
a second tuner connected with the control unit capable of being tuned to a second
10 frequency setting;
a digital signal processor connected with the first tuner and the second tuner configured to generate a first audio output signal as a function of the first frequency setting of the first tuner and a second audio output signal as a function of the second frequency setting of the second tuner;
15 a first audio power amplifier connected with the digital signal processor configured to receive the first audio output signal; and
a second audio power amplifier connected with the digital signal processor configured to receive the second audio output signal.

20 19. The radio receiver of claim 18 where the control unit is configured to tune the first and second tuner to the first and second frequency settings.

25 20. The radio receiver of claim 18 further comprising a radio data system decoder connected with the first tuner and the control unit.

21. The radio receiver of claim 20 where the radio data system decoder is configured to provide the control unit with a list of alternative frequencies for the first frequency setting.

30 22. The radio receiver of claim 21 where the control unit is configured to tune the first tuner to an alternate frequency if a signal quality indication of the first tuner falls below a predetermined level of quality.

23. The radio receiver of claim 20 where the radio data system decoder is configured to provide data to the control unit associated with the first frequency setting.

24. The radio receiver of claim 23 where the data is displayed on a display connected with the control unit.

25. The radio receiver of claim 18 further comprising a radio data system decoder connected with the second tuner and the control unit.

26. The radio receiver of claim 25 where the radio data system decoder is configured to provide the control unit with a list of alternative frequencies for the second frequency setting.

27. The radio receiver of claim 26 where the control unit is configured to tune the second tuner to an alternate frequency if a signal quality indication of the second tuner falls below a predetermined level of quality.

28. The radio receiver of claim 25 where the radio data system decoder is configured to provide data to the control unit associated with the second frequency setting.

29. The radio receiver of claim 28 where the data is displayed on a display connected with the control unit.

30. The radio receiver of claim 18 where the first audio power amplifier is connected with a speaker system and the second audio power amplifier system is connected with a headphone jack.

31. A radio receiver comprising:

means for tuning a first tuner to a first frequency setting and a second tuner to a second frequency setting; and

means for generating a first audio output signal as a function of a first radio signal received from the first frequency setting and a second audio output signal as a function of a second radio signal received from the second frequency setting.

32. The radio receiver of claim 31 further comprising means for amplifying the first audio output signal to be played on at least one speaker.

5 33. The radio receiver of claim 32 further comprising means for amplifying the second audio output signal for a headphone jack.

34. The radio receiver of claim 31 further comprising means for retuning the first and second tuner if the first or second radio signal falls below a predetermined level of quality.

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